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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/723,396

11/26/2003

Ping-Wha Lin

121048-0006

8874

35684

7590

10/02/2006

BUTZEL LONG  
350 SOUTH MAIN STREET  
SUITE 300  
ANN ARBOR, MI 48104

EXAMINER

PALABRICA, RICARDO J

ART UNIT

PAPER NUMBER

3663

DATE MAILED: 10/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>		<b>Applicant(s)</b>	
	10/723,396		LIN, PING-WHA	
	<b>Examiner</b>		<b>Art Unit</b>	
	Rick Palabrica		3663	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 18 July 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-12, 14, 16 and 18-32 is/are pending in the application.
- 4a) Of the above claim(s) 10-12, 14, 16, 18-20, 27, 31 and 32 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9, 21-26 and 28-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

1. Applicant's 7/18/06 Amendment, which directly amended claim 1 and traversed the rejection of claims in the 1/19/06 Office action, is acknowledged.

Applicant's arguments have been fully considered but found not convincing. Additionally, applicant has provided no response to many of the issues raised by the examiner, for example, on pages 6-13 of said Office action.

### ***Response to Arguments***

2. Applicant traversed the rejection of claims under 35 U.S.C. 112, first paragraph and 35 U.S.C. 101 on the grounds that he has: a) provided a detailed description of how to practice the invention; b) provided working examples conducted by a research facility in North Carolina; c) demonstrated by experimental testing that the claimed invention "produces sustained heat while water molecules disappear." The Examiner disagrees.

The claims are directed to a method to generate electricity by nuclear reactions (e.g., see claim 1). Additionally, said electricity generation is disclosed as due to cold nuclear fusion (e.g., see the specification at pages 7 and 15).

Applicant's claim of producing sustained heat while molecules disappear is clearly NOT the purpose of the invention. Thus, the claims are directed to subject matter that lacks utility by reason of being inoperative for the intended purpose. Also, the examiner has shown that the disclosure does not contain reputable evidence that support the asserted utility of producing electricity by cold nuclear fusion. Accordingly, one skilled in the art clearly would not know how to use the claimed invention.

Applicant's assertion that utility resides in the production of sustained heat while the water molecules disappear, is overly broad. In *Brenner v. Manson*, 383 U.S. 519, 148 USPQ 689 (1966), the Court said:

"The basic *quid pro quo* contemplated by the Constitution and the Congress for granting patent monopoly is the benefit derived by the public from an invention with substantial utility. Unless and until a process is refined and developed to this point -- where specific benefit exists in currently available form -- there is insufficient justification for permitting an applicant to engross what may prove to be a broad field.

\* \* \*

"This is not to say that we mean to disparage the importance of contributions to the fund of scientific information short of the invention of something 'useful' or that we are bind to the prospect that what now seems without 'use' may tomorrow command the grateful attention of the public. But a patent is not a hunting license. It is not a reward for the search, but compensation for its successful conclusion. '[A] patent system must be related to the world of commerce than to the realm of philosophy. \*\*\* [footnote omitted]." Underlining provided.

Applicant argues that the so-called working examples were conducted by a reputable research facility in Research Triangle Park in North Carolina. It is noted that the experimental results relied upon were based on tests performed by a contractor, i.e., Arcadis Geraghity & Miller (AGM), in close consultation with the inventor, i.e., the applicant himself (see page 19+ of the specification). Clearly, since applicant was involved in the experiment and it is assumed that the tests run by the contractor were funded by the applicant, such does not constitute an independent, unbiased source. Independent, unbiased sources must be solicited when the utility of the claimed invention is based upon allegations that border on the incredible or allegations that would not be readily accepted by a substantial portion of the scientific community.

"Reproducibility" must go beyond one's own laboratory. Note in this regard the following comments by Huizenga ("Cold Fusion", The Scientific Fiasco of the Century, page 222+) under the heading, "Reproducibility in Science":

Art Unit: 3663

"The foundation of science requires experimental results to be reproducible. Validation is an integral part of the scientific process. Scientists are obligated to write articles in ways that allow observations to be replicated. Instructions should be available to permit a competent and well-equipped scientist to perform the experiment and obtain essentially the same results. Replication in science usually is reserved for experiments of special importance or experiments that conflict with an accepted body of work. The greater the implication of an experimental result, the more quickly it will be checked by other scientists.

As more and more groups at major universities and national laboratories were unable to replicate either the claimed excess heat or fusion products, proponents of cold fusion quickly pointed out that the experiment was not done properly: one needed different size palladium cathodes, longer electrolysis times, and higher currents, they claimed.

Whenever the inability of qualified scientists to repeat an experiment is met by ad hoc excuses, beware. One important role of a scientific article is to provide directions for others. Scientists establish priorities for their discoveries by publishing a clear and well documented recipe of their experimental procedures. If a scientific article fails to include an adequate recipe, which allows a skilled reader to reproduce the experiment, it is a warning that the author's understanding of their work is incomplete.

Cold-fusion proponents introduced new dimensions into the subject of reproducibility in science. Some tried to turn the tables on reproducibility by giving irreproducibility a degree of respectability. A second aberration was to assign a different value to experiments attempting replication. Only experiments that obtain some fragmentary evidence for cold fusion were to be taken seriously because it was declared that experiments obtaining negative results required no special skills or expertise. This viewpoint led proponents of cold fusion to invite mainly papers reporting positive results when organizing conferences. Such an aberrant procedure is incompatible with the scientific process and usually is viewed negatively by scientists as well as journalists."

One must produce a set of instructions, a recipe, which would enable anyone in their own independent laboratory, to produce the same results. If reproducibility only occurs in one's own laboratory, errors (such as systematic errors) would be suspect.

Clearly, if something cannot be reproduced at will, there is also, then, no enabling disclosure that would enable one of ordinary skill in the art, to make and use it, as required by statute (35 U.S.C. 112).

3. On pages 12 and 13 of the Remarks section of his 7/16/06 Amendment, applicant argues that: a) the testing conducted by the research contractor has proven that his theory i.e., Lin's Theory of Flux, results in "sustained heating"; and b) that the scientific community has accepted said theory, as applied to the instant invention.

These alleged affirmations of said theory may have shown such sustained heating, but they do not prove that the heat was the result of nuclear reactions. For example, applicant has not provided any reputable evidence of neutron gamma rays, tritium or helium production to support the allegation or claim that nuclear fusions are taking place to generate this alleged heat. See also page 5 of the 1/19/06 Office action.

4. On page 12, last line, and on page 13, line 2+, of the Remarks section, applicant also argues that: a) "[c]alculations provided in the specification confirm that the only possibility of generating the heating that was witnessed was due to the formation of protons and free electrons; and b) "the present invention, as set forth in the claims, merely involves collecting the free or freed electrons for use in developing electrical potential."

As to argument a), the examiner has highlighted in the previous office action the lack of an adequate description and enabling disclosure of a specific operative embodiment of the invention, including the calibration of instrumentation, composition including impurities of materials used in the experiment, etc. Accordingly, these calculations do not provide objective evidence that the observed heating are not due to instrumentation errors, experimental errors, misinterpretation of results, etc.

As to argument b), this is a clear admission by the applicant the electricity produced by his apparatus is NOT due to nuclear reactions, much less nuclear fusion, but rather due to electrons, which are atomic particles and NOT nuclear particles!

Still as to argument b), applicant himself admits that the sustained heat energy he alleges to observe in his system is the result of processes occurring OUTSIDE (not inside) the nucleus, as evidenced by his statement:

"What applicant has determined, and proven by the scientific community, is that when heat energy is injected rapidly into a system containing chemical species such as water, the activities of particles (molecules, atoms or nuclei, and electrons) are increased: the particles are accelerated; frequencies and amplitudes of electron and atomic vibrations in a molecule increase; average kinetic energy of the particles increase; atomic bonds are ruptured; and electrons are caused to leave their orbits. This proven outcome is referred to as Lin's Theory of Flux." Underlining provided. See page 12, 2<sup>nd</sup> paragraph of the Remarks section of the Amendment.

It is clear that whatever phenomenon applicant is observing is happening at the molecular level, or at best, at the atomic level, and NOT at the nuclear level where fusion reactions occur !

5. On page 13, 4<sup>th</sup> paragraph of the Remarks section, in response to examiner's reference to the lack of actual nuclear measurements, applicant argues that "science often relies upon inference, which applicant has reasonable (*sic*) done in the present situation." The examiner agrees that science allows inference but that inference must be based on solid grounds, which is not the case for applicant's case. Applicant has not provided objective evidence that his observation and conclusion (i.e., sustained heat

Art Unit: 3663

from cold nuclear fusion) are not due to instrumentation errors, experimental errors, misinterpretation of results, etc.

6. On page 14 of the Remarks section, applicant alleges that his cold fusion apparatus is different from with the Fleischman and Pons (F and P) electrochemical cold fusion apparatus. The examiner disagrees.

There are numerous citations in the specification that applicant's system is a chemical reaction apparatus, as in F and P's case. For example, as in F and P, applicant's invention is a chemical reaction system using hydrogen as source material (e.g., see specification on page 5, lines 2+). In fact, one embodiment that the applicant discloses uses the same liquid form of the hydrogen source, similar to F and P. Said embodiment uses water that is dissociated to  $H_2$  and  $O_2$ , and  $H_2$  nuclei are allegedly made to collide to cause fusion reactions (see specification on page 34, paragraph bridging pages 34 and 35).

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

### ***Specification***

7. The specification is objected to under 35 U.S.C. 112, first paragraph, as failing to provide an adequate written description of the invention and as failing to adequately



teach how to make and/or use the invention, i.e. failing to provide an enabling disclosure.

The reasons are the same as those stated in section 2 of the 1/19/06 Office action, as further clarified in sections 2-6 above, which reasons are herein incorporated.

***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

8. Claims 1-9, 21-26 and 28-30 are rejected under 35 U.S.C. 101 because the claimed invention as disclosed is inoperative and therefore lacks utility.

The reasons are the same as those stated in section 3 of the 1/19/06 Office action, as further clarified in sections 2-6 above, which reasons are herein incorporated.

***Claim Rejections - 35 USC § 112***

9. Claims 1-9, 21-26 and 28-30 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The reasons are the same as those stated in section 4 of the 1/19/06 Office action, as further clarified in sections 2-6 above, which reasons are herein incorporated.

***Conclusion***

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rick Palabrica whose telephone number is 571-272-6880. The examiner can normally be reached on 6:00-4:30, Mon-Thurs.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Keith can be reached on 571-272-6878. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.


Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

Art Unit: 3663

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

RJP

September 28, 2006

  
RICARDO J. PALABRICA  
PRIMARY EXAMINER